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Arizona Corporation Commission
DOCKETED

AUG 17 2018

DOCKETED BY

## BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

TOM FORESE, Chairman
BOB BURNS
ANDY TOBIN
BOYD DUNN
JUSTIN OLSON

| | |
|---|---|
| IN THE MATTER OF:<br><br>STACEY CHAMPION, et al.,<br><br>Complainant,<br><br>v.<br><br>ARIZONA PUBLIC SERVICE COMPANY, an Arizona Public Service Corporation,<br><br>Respondent. | DOCKET NO. E-01345A-18-0002<br><br>**ARIZONA PUBLIC SERVICE COMPANY'S NOTICE OF FILING REBUTTAL TESTIMONY** |

APS provides notice that it is filing the attached rebuttal testimonies of Mr. Leland Snook, Ms. Jessica Hobbick, Mr. Charles Miessner, and Dr. Ahmad Faruqui, as Exhibits 1-4, respectively.

RESPECTFULLY SUBMITTED this 17th day of August 2018.

By: Melissa M. Krueger

Thomas A. Loquvam
Thomas L. Mumaw
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Attorneys for Arizona Public Service Company

ORIGINAL and thirteen (13) copies of the foregoing filed this 17th day of August 2018, with:

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# EXHIBIT 1

## Rebuttal Testimony of

## Leland Snook

**REBUTTAL TESTIMONY OF LELAND R. SNOOK**

**On Behalf of Arizona Public Service Company**

**Docket No. E-01345A-18-0002**

August 17, 2018

## Table of Contents

**REBUTTAL TESTIMONY OF LELAND R. SNOOK**
**ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
**(Docket No. E-01345A-18-0002)**

I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME AND ADDRESS.**

A. My name is Leland R. Snook. My business address is 400 North 5th Street, Phoenix, Arizona 85004.

**Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THIS MATTER?**

A. Yes. I filed Direct Testimony in this matter on July 31, 2018.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. The purpose of my Rebuttal Testimony is to summarize the Company's response to Complainant's testimony in this proceeding and to specifically address portions of the Direct Testimony of Champion witness Abhay Padgaonkar. While other APS witnesses address the primary flaws in Mr. Padgaonkar's rebilling analysis, I address his analysis of the revenue impacts of the Settlement rates and the erroneous conclusions he draws from that revenue analysis.

**Q. PLEASE SUMMARIZE THE COMPANY'S RESPONSE TO COMPLAINANT'S TESTIMONY.**

A. Mr. Padgaonkar confirms the accuracy of the overall base rate increase implemented by APS. He also finds that the Company's operating revenues are in-line with what should be expected as a result of the Rate Case.

Mr. Padgaonkar hypothesizes that APS's adjustor rates were not reduced by the same amount as the increase to base rates. This is incorrect. Mr. Padgaonkar's errors include the following: (1) he significantly underestimates bill reductions from adjustor rates because he relies solely on price trends and observed rate schedules; (2) he appears to misunderstand how adjustor rates are derived and implemented; (3) he does not account for timing differences inherent in several adjustor mechanisms; and (4) he does not account for two adjustors that were increased through their annual budget approval process at the same time they were reduced due to the Rate Case transfer.

APS's adjustor mechanisms all operate in accordance with their own Plans of Administration (POA(s)), and each mechanism has a balancing account that tracks the cost recovery. This feature automatically will true-up any under- or over-collected amounts annually. Therefore, over time, APS only recovers the authorized amount through each adjustor. Additionally, each adjustor goes through an annual Staff review process. The transfer of revenue from an adjustor into base rates goes through this same level of scrutiny.

Some adjustors use forecast information and others have a lag in cost recovery, which can create differences in the timing of cost recovery. However, APS will only recover the authorized cost. Here, each adjustor transfer was done in accordance with its POA, with the Settlement Agreement describing the endpoint result of the various adjustor transfers and not necessarily the day-one impact.

I will also address Mr. Padgaonkar's inaccurate assessment of APS's operating revenues as a result of the Rate Case. APS witness Charles A. Miessner addresses the fundamental flaws and over simplification in Mr. Padgaonkar's and Richard Gayer's assessment of the adjustor mechanism revenue transfers. APS witness Jessica E. Hobbick addresses the assertions from Mr. Padgaonkar regarding the customer rate selection and bill impacts, as well as Mr. Gayer's numerous mistakes. Last, APS witness Dr. Ahmad Faruqui describes the conceptual problems in Mr. Padgaonkar's analysis of customer's bills.

**Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

A. A rate case proceeding is complex, and there are a number of ways to describe what will result from the changes in revenue and the rates developed to recover the new authorized revenue levels. Mr. Padgaonkar does not evidence a complete understanding of the complexity. On one hand, Mr. Padgaonkar does confirm APS's calculation of the total non-fuel base rate increase for residential customers, but on the other hand, he oversimplifies the transfer of adjustor amounts in his rebilling analysis and derives an erroneous result.

Mr. Padgaonkar mistakenly equates the $94.624 million net base rate increase before adjustor transfers with the total anticipated revenue increase approved by the Settlement. He ignores the fact that the actual non-fuel base rate increase included in the Settlement was $148.25 million. Thus, when Mr. Padgaonkar extrapolates information provided in Pinnacle West 10-Q's and 10-K to come up with a full-year revenue impact of $148 million, he has actually validated the accuracy of the non-fuel base rate increase in the Settlement, rather than proving that APS is receiving higher than anticipated revenues. To illustrate this point, I describe the rate increase agreed to by the Settling Parties in some detail, which was also in my Direct Testimony in support of the Settlement Agreement.

## II. MR. PADGAONKAR'S ANALYSIS OF APS REVENUES IN THE YEAR FOLLOWING DECISION NO. 76295 VALIDATES THE COMPANY'S LEVEL OF AUTHORIZED REVENUES

**Q. PLEASE DESCRIBE THE BASE RATE INCREASE AGREED TO BY THE SETTLING PARTIES AND APPROVED BY THE COMMISSION.**

A. As a result of Decision No. 76295, APS received a base rate increase of $362.58 million. The base rate increase is comprised of:

| | |
|---|---|
| Non-Fuel, Non-Depreciation Increase | $87.250 million; plus |
| Depreciation Expense Increase | $61.000 million; which equals |
| Non-Fuel Base Rate Increase | $148.250 million; less |
| Base Fuel Rate Decrease | $(53.626) million; which equals |
| Net Base Rate Increase before Adjustors | $94.624 million; plus |
| Transfer from Adjustor Mechanisms | $267.953 million; which equals |
| Total Base Rate Increase | $362.577 million |

The fuel and other adjustors are revenue neutral because the increase or decrease in base revenues for these items is offset by a corresponding decrease or increase in the various adjustors. So the expected increase in revenues is the non-fuel base rate increase of $148.25 million shown above. This is exactly what Mr. Padgoankar calculated. By conflating that figure with the $94.624 million, Mr. Padgaonkar tells only a part of the story.

**Q. ARE OPERATING REVENUES THE SAME AS EARNINGS?**

A. No. While the former influences the latter, they are not equivalent. Operating revenues are the total amount the Company receives for the service APS provides to customers. Earnings are the net income APS retains after paying all of the cost incurred in providing service, including expenses for fuel, operations and maintenance, depreciation, interest on debt obligations, property taxes and income taxes.

**Q. MR. PADGAONKAR CONTENDS THE OPERATING REVENUE APS IS EXPERIENCING IS HIGHER THAN ANTICIPATED AS A RESULT OF THIS RATE PROCEEDING. IS THIS CORRECT?**

A. No. The authorized non-fuel base rate increase of $148.25 million is the amount that should be anticipated, if all other things are equal, to be realized in additional annual operating revenues from Decision No. 76295. Mr. Padgaonkar has validated the anticipated operating revenues that should result from the Settlement rather than proving higher than anticipated revenues.

## III. MR. PADGAONKAR ALSO VALIDATES THE PERCENT INCREASE IN BASE RATES FOR RESIDENTIAL CUSTOMERS CALCULATED BY APS

**Q. HAS MR. PADGAONKAR VALIDATED THE PERCENT INCREASE IN TOTAL BASE RATES CALCULATED BY APS?**

A. Yes. APS's total adjusted Test Year base rate revenue was \$2,888,903,000. With the adjustor transfers and the reduction in the base fuel rate, the total base rate increase that was authorized in Decision No. 76295 was \$362.577 million. Dividing the total base rate increase by the Test Year base rate revenue produces the overall base rate increase in percentage terms. On an overall basis, including commercial customers, the result is as follows:

(\$362,577,000) / (\$2,888,903,000) = 12.55%

Adding the total base rate increase to the Test Year base rate revenue brings the total authorized base rate revenue requirement to \$3,251,480,000. Residential customers were allocated \$236,351,573 of the increase and commercial customers (including lighting and irrigation) were allocated \$126,225,447. Dividing the total residential base rate increase by the residential Test Year base rate revenue produces the overall residential base rate increase in percentage terms:

(\$236,352,573) / (\$1,486,577,640) = 15.9%

Appendix L to the Settlement Agreement lays out the target increase by customer class, including an illustration of the adjustor transfers and is attached to my Rebuttal Testimony as Attachment LRS-01RB.

Through his rebilling analysis, Mr. Padgoankar established that the base rates implemented for residential customers from Decision No. 76295 produced this exact result, i.e., a 15.9% change in base rates. Subtracting the 11.36% reduction in adjustor revenues produces the 4.54% calculated by APS.

## IV. ADJUSTOR TRANSFERS

**Q. IS MR. PADGAONKAR CORRECT IN HIS ASSERTION THAT THE ADJUSTOR TRANSFERS DID NOT RESULT IN THE DECREASE REPRESENTED BY APS?**

A. No. Mr. Padgaonkar is incorrect. APS rebuttal witness Charles Miessner will address this in detail in his testimony. However, the various adjustors that were reduced and the resulting rates that went into effect were accurate. Mr. Miessner will also detail how the adjustor mechanisms operate, which is not accurately reflected in Mr. Padgaonkar's oversimplified rebilling analysis. The amounts that were transferred from adjustors were not a complete reset to zero for each adjustor. Some adjustors recover budgeted amounts that change annually. Others do not have as many items that are eligible to include in base rates, and thus have fewer eligible dollars to transfer. The adjustor transfers generally moved amounts collected in the 2015 Test Year, which was not the full adjustor amount on the day new rates went into effect, but some, such as the Four Corners Adjustment (FCA) and Environmental Improvement Surcharge (EIS) did reset to zero. Further, the Power Supply Adjustor (PSA) is not reflected in the Settlement's calculation of the adjustor transfers because it was handled separately and operates independently as a pass-through mechanism. Mr. Padgaonkar's analysis does not correct for the separate rate case treatment of the PSA, which significantly distorts his results. Suffice it to say, the transfer of adjustor amounts to base rates is a complex process, but was implemented correctly by APS according to the terms of the Settlement and Decision No. 76295.

**Q. PLEASE ELABORATE ON WHAT OCCURS WITH THE PSA IN A RATE CASE WHEN BASE FUEL COSTS ARE RESET.**

A. When resetting base fuel in a rate case, either up or down, the forward looking PSA component is increased or decreased in manner that keeps total fuel costs equal. This is done so that the collections for the current fuel year are unaffected. Base fuel is reset to reflect the anticipated future cost of fuel during the period of time the approved rates will be in effect. Also, because fuel cost is a pass-through expense, through the combination of base fuel charges and the PSA, APS recovers the actual cost of fuel. In addition, this mechanism includes a balancing account and is reset in February of each year. The balancing account feature ensures that APS can recover only the actual fuel cost APS incurs to provide service to customers.

In this case, base fuel was decreased by $53.625 million, and the PSA forward component was contemporaneously increased by the same amount. Thus, to get to the actual non-fuel revenues APS would be expected to recover in the 12 months following the rate change, one would need to add back the $53.625 million, which would result from increasing the PSA charge by this equal amount. This arrives at the same $148.25 million in non-fuel revenue I previously discussed.

**Q. DO YOU HAVE ANY FURTHER COMMENTS ON MR. PADGAONKAR'S SUGGESTION THAT APS COULD ACTUALLY RECEIVE $208 - $233 MILLION IN REVENUE FROM RESIDENTIAL CUSTOMERS ALONE?**

A. Yes. Mr. Padgaonkar arrives at this speculation by extrapolating his bill impact analysis forward. APS rebuttal witness Miessner details the flaws in Mr. Padgaonkar's rebilling analysis related to the adjustor transfers. Once the analysis is corrected for the flaws, Mr. Padgaonkar's assertion simply does not withstand scrutiny.

**Q. WHAT IS YOUR RESPONSE TO MR. PADGAONKAR'S SPECULATION ABOUT THE IMPACT OF CUSTOMER RATE SELECTION ON REVENUES?**

A. APS witness Jessica Hobbick addresses Mr. Padgaonkar's claims regarding customer's rate selections. The observed results are not in line with Mr. Padgaonkar's suppositions. Therefore his conclusions are flawed.

V. <u>CONCLUSION</u>

**Q. WOULD YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?**

A. Yes. Rather than realizing an unanticipated windfall, APS revenues post-Rate Case are completely consistent with the increase authorized by the Settlement and Decision No. 76295. The percentage increase in base rates for residential customers, without regard to the reduced adjustors, was validated by Mr. Padgaonkar to be the same 15.9% calculated by APS and expressly set forth in Appendix L of the Settlement. Finally, Mr. Padgaonkar's analysis of the adjustor transfer is flawed and incomplete, thus causing him to greatly overstate the bill impact to residential customers resulting from the Settlement.

**Q. DOES THIS CONCLUDE YOUR WRITTEN REBUTTAL TESTIMONY?**

A. Yes.

**Targets by Class**
**Settlement**

| | Target | Percent |
|---|---|---|
| Settlement revenue increase | 94,624,000 | 3.28% |
| Application revenue increase | 165,883,743 | 5.74% |
| ratio | 57.0424% | |
| adjustor transfer | 267,953,000 | 9.28% |
| Increase base rates (with adjustor transfer) | 362,577,000 | 12.55% |
| GS - XS,S decrease to spread to non-res | 123,826 | 0.014% |
| Schools discount | 1,206,688 | 0.086% |

| Class | Base Rates ATY Revenue | Present % COS | Application Requested Increase | Step 1 Settlement Requested Increase | Step 2 Spread GS - XS,S hold | Step 3a Recover Schools Discount | Step 3b Receive Schools Discount | **Net Impact** Increase | Adjustor Transfers | Target **Increase Base Rates** | Actual **Increase Base Rates** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Residential | 1,486,577,640 | 85.9% | 7.959% | 4.54% | 0.00% | 0.00% | 0.00% | 4.54% | 11.36% | **15.90%** | 15.90% |
| GS - XS,S | 515,621,307 | 123.7% | 0.042% | 0.04% | 0.00% | 0.09% | -0.04% | 0.09% | 8.59% | **8.68%** | 8.66% |
| GS - M | 316,428,191 | 111.9% | 4.042% | 2.31% | -0.01% | 0.09% | -0.17% | 2.21% | 7.66% | **9.86%** | 9.87% |
| GS - L | 293,386,250 | 100.5% | 6.042% | 3.45% | -0.01% | 0.09% | -0.07% | 3.45% | 5.10% | **8.55%** | 8.55% |
| GS - XL | 203,076,401 | 87.0% | 6.142% | 3.50% | -0.01% | 0.09% | 0.00% | 3.58% | 4.71% | **8.28%** | 8.28% |
| GS - schools | 11,344,975 | 91.1% | 6.042% | 3.45% | -0.01% | 0.09% | -2.33% | 1.19% | 9.35% | **10.54%** | 10.54% |
| GS - worship | 4,069,264 | 62.3% | 9.042% | 5.16% | -0.01% | 0.09% | 0.00% | 5.23% | 11.34% | **16.57%** | 16.77% |
| Irrigation | 28,739,440 | 93.7% | 5.742% | 3.28% | -0.01% | 0.09% | 0.00% | 3.35% | 11.30% | **14.65%** | 14.66% |
| Lighting | 29,660,294 | 94.6% | 5.742% | 3.28% | -0.01% | 0.09% | 0.00% | 3.35% | 4.37% | **7.71%** | 7.71% |
| Total | 2,888,903,762 | 95.0% | 5.742% | 3.28% | | | | 3.28% | 9.28% | **12.55%** | **12.55%** |

| | | Increase | Increase |
|---|---|---|---|
| residential | 1,486,577,640 | 7.96% | 4.54% |
| Non-res | 1,402,326,122 | 3.40% | 1.93% |

# EXHIBIT 2

## Rebuttal Testimony of

## Jessica Hobbick

# REBUTTAL TESTIMONY OF JESSICA E. HOBBICK

## On Behalf of Arizona Public Service Company

## Docket No. E-01345A-18-0002

August 17, 2018

## Table of Contents

**DIRECT TESTIMONY OF JESSICA E. HOBBICK**
**ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY**
**(Docket No. E-01345A-18-0002)**

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME AND ADDRESS.**

A. My name is Jessica E. Hobbick. My business address is 400 North 5th Street, Phoenix, Arizona 85004.

**Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THIS MATTER?**

A. Yes. I filed Direct Testimony in this matter on July 31, 2018.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. The purpose of my Rebuttal Testimony is to address portions of the Direct Testimony of Champion witnesses Abhay Padgaonkar and Richard Gayer. Specifically, I address assertions made by Mr. Padgaonkar regarding customer rate selection and claims made by both witnesses regarding customer bill impacts.

## II. SUMMARY

**Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

A. In my Rebuttal Testimony, I correct Mr. Padgaonkar's claims regarding customer rate optimization while also illustrating that actual customer rate selection is consistent with APS's forecast. I also point out several mathematical flaws with Mr. Gayer's personal bill analysis and describe why evaluating a rate increase on a cents per kWh basis is inaccurate.

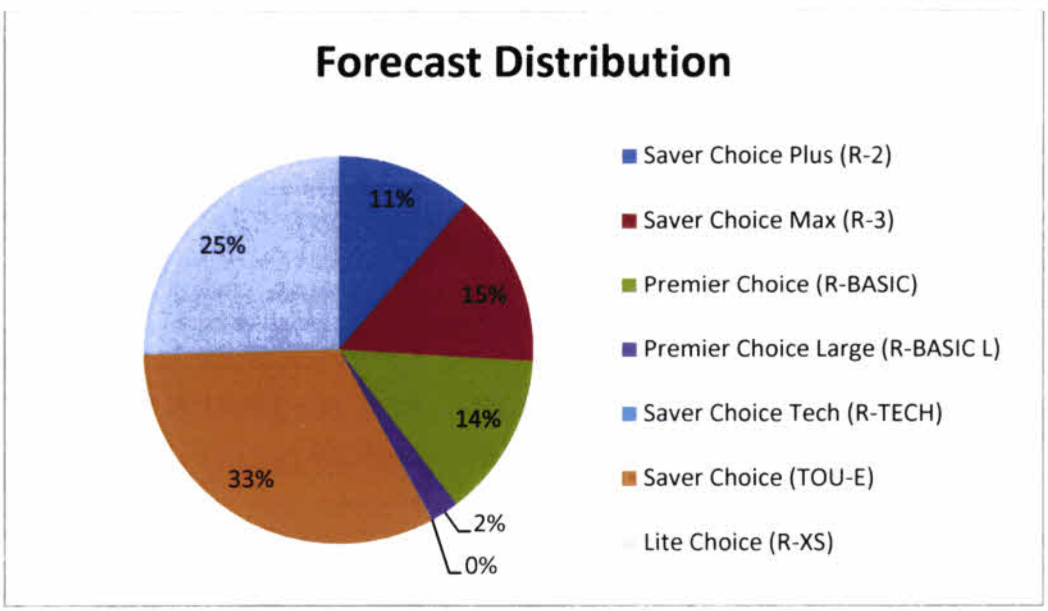
## III. CUSTOMER RATE SELECTION AND BILL IMPACTS

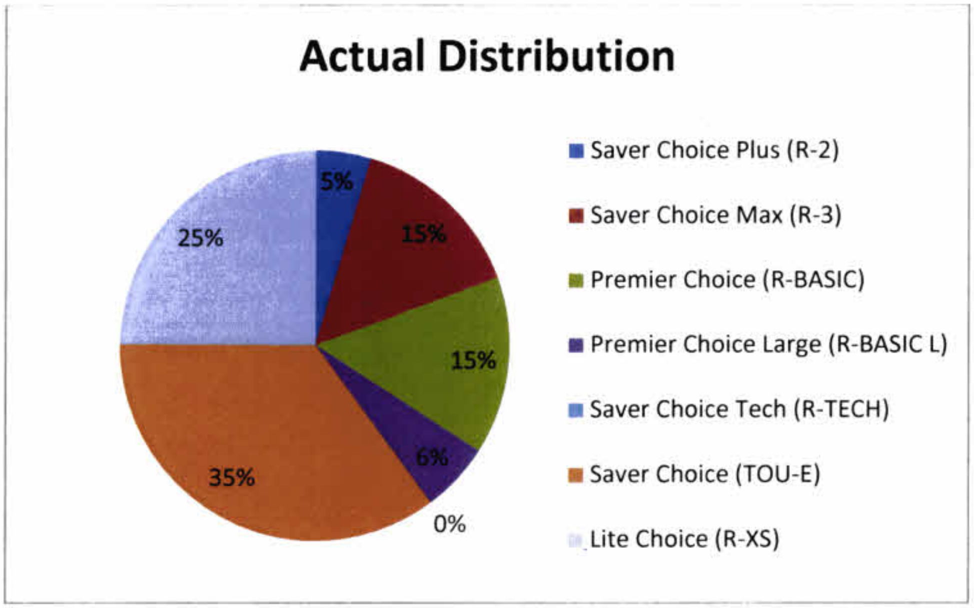
**Q. DID NINE OUT OF TEN CUSTOMERS END UP ON THEIR MOST-LIKE PLAN AS ASSERTED BY MR. PADGAONKAR?**

A. No. After the transition to new rates approximately eight of every ten customers are on rates most-like their prior rate plan. Furthermore, for many of those customers, their most-like rate is also their best, or most economical rate. As of May 1, 2018, nearly half of all residential customers were on their most economical rate, and further rate optimization has been ongoing since the transition.

**Q. WERE APS'S FORECASTS REGARDING CUSTOMER RATE SELECTION ACCURATE?**

A. Yes. As is illustrated below, the actual distribution of residential customers on each of the new rate plans as of May 1, 2018 is nearly identical to the distribution assumed when allocating the revenue to be recovered from each rate plan. As customers continue to access the Rate Comparison Tool on aps.com and receive information describing the details of APS's new rates, additional rate optimization is occurring and is expected to continue in the future.






**Q. IS MR. PADGAONKAR'S ASSERTION THAT RESIDENTIAL CUSTOMERS EXPERIENCED AN ACTUAL AVERAGE BILL IMPACT OF 12.56% ACCURATE?**

A. No. Mr. Padgaonkar is not correct. Although he validates that APS has appropriately designed rates to collect the approved base rate increase of 15.9% on transition rates, he has not properly accounted for the adjustor impacts. APS rebuttal witness Charles Miessner will address this in detail in his testimony.

**Q, IS A SIMPLE YEAR-OVER-YEAR COMPARISON OF BILLS MEANINGFUL?**

A. Not in an absolute sense. APS agrees with Mr. Padgaonkar's statement that performing a comparison using bills from different years even for the same months is not an apples-to-apples comparison based on variations in a number of factors, including the customer's change in kWh energy consumed or maximum kW demand in a given hour. These are often referred to as the billing determinants. With that said, APS has performed this year-over-year analysis on many customers, since that is typically how they evaluate or compare changes in their energy charges, and found that any bill increases in excess of 4.54% were easily explainable based on a variety of factors including customer usage, days in the billing period, AMI opt-out fees, etc. These findings indicate that customers are not seeing bill impacts in the magnitude Mr.

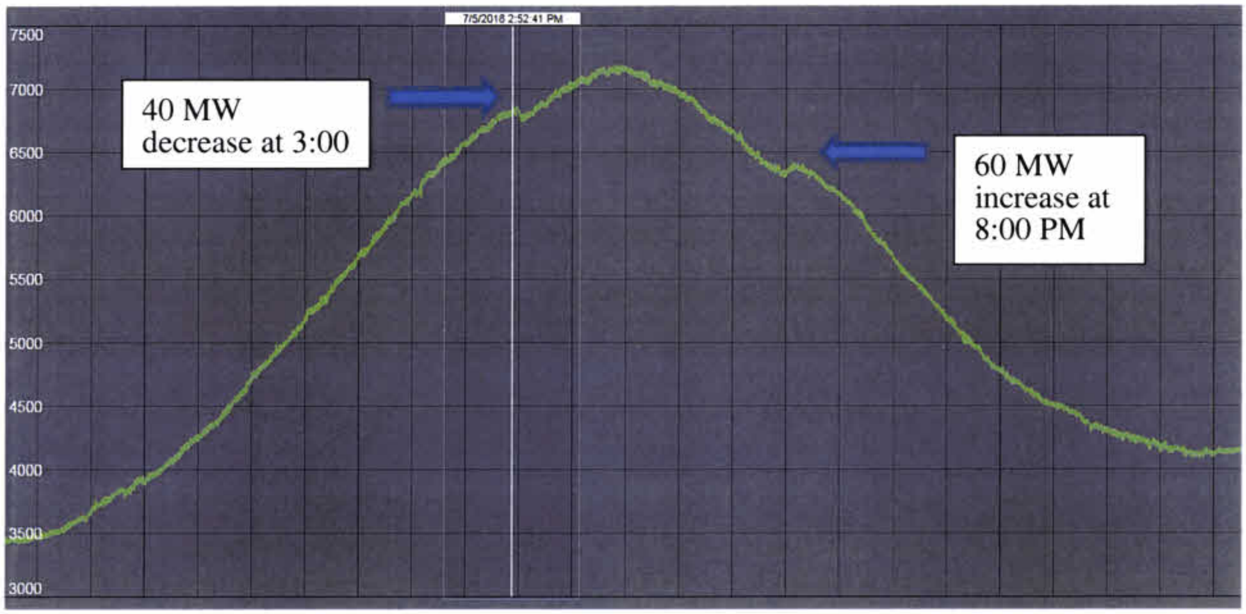
Padgaonkar describes. If customers were experiencing the impacts alleged by Mr. Padgaonkar, the results of this analysis would reveal significantly higher impacts than were found and described in my Direct Testimony.

**Q. ARE THERE OTHER FACTORS THAT COULD AFFECT CUSTOMER BILLS WHICH MR. PADGAONKAR FAILS TO RECOGNIZE IN HIS ANALYSIS?**

A. Yes. Mr. Padgaonkar focuses his analysis on rebilling Test Year billing determinants on new rates. While this is effective in determining that the rates were designed appropriately to recover the approved base rate increase, it cannot be translated into the customer bill impact actually realized or experienced. For example, as part of the implementation of the new rates, APS revised the on-peak window for residential customers from noon to 7 p.m. to 3 p.m. to 8 p.m. When using 2015 billing determinants to determine bill impacts, actual customer usage during the new on-peak window is used to assess on-peak energy charges as well as peak usage (also known as demand charges). Since many customers were previously reducing usage during the noon to 7 p.m. window, higher usage levels between 7 p.m. and 8 p.m. are treated as on-peak in the bill impacts for new time-of-use (TOU) rates. No adjustments were made to account for customers modifying their behavior to reduce consumption during the new, shorter, 5-hour on-peak window. Similarly, Attachment JEH-1DR to my Direct Testimony does not adjust for any subsequent changes in customer behaviors and includes many customers whose usage may not be consistent with the "average" customer. Limited income discounts are also not included in this impact analysis.

**Q. HAVE CUSTOMERS SHIFTED USAGE IN RESPONSE TO THE NEW TOU PEAK HOURS?**

A. Preliminary monitoring demonstrates that customers are changing their behaviors to reduce consumption between 3 p.m. and 8 p.m., Monday through Friday. This translates into customers mitigating much of the estimated impact shown in Attachment JEH-1DR. The graphic below indicates that at 3:00 p.m., when the new on peak window begins, a significant reduction in system load occurs. Similarly, at 8:00 p.m. an increase in energy consumption is seen. This evidence suggests that customers are responding to the new on-peak hours and as a result minimizing the bill impact actually experienced.




**Q. WHAT IS THE IMPACT TO APS IF CUSTOMER USAGE AND BEHAVIORS VARY FROM THE TEST YEAR BILLING DETERMINANTS?**

A. Any efforts made by customers to manage their on-peak energy and demand beyond what was accounted for in the revenue level the new rates were designed to collect could potentially result in under-recovery by APS.

## IV. <u>REBUTTAL TO RICHARD GAYER</u>

**Q. ARE MR. GAYER'S CLAIMS REGARDING HIS OWN BILL IMPACT CORRECT?**

A. No. APS identifies a number of errors in Mr. Gayer's calculations. He provided three tables reflective of billed energy charges, adjustor charges, and the sum of both energy and adjustors from January of 2015 through June of 2018. In Table 1, including only the energy charges, his summation of total usage and billed dollars for 2018 missed a month of data entirely. This table also misrepresents six months of data as an annual number. In Table 2, which includes the adjustor charges, there were seven months included where the adjustor charges are calculated incorrectly. Mr. Gayer also erroneously calculates the mean cents per kWh by averaging rounded monthly figures instead of dividing his total annual billed dollars by the total annual kWh usage. In Table 3, Mr. Gayer incorrectly applies summer rates to all months and uses a monthly basic service charge amount instead of the daily charge that is outlined in the rate schedule. These mistakes include inaccuracies that reflect up to a 41% variance.

Mr. Gayer also converts his energy charges to a cents per kWh figure when illustrating the percentage of increase year-over-year. As described in my Direct Testimony, there are a number of influences that affect a cents per kWh comparison, such as magnified impacts of a fixed charge increase when spread over fewer kWh's in lower usage months.

V. CONCLUSION

**Q. DO YOU HAVE ANY FINAL COMMENTS?**

A. Yes. APS customers have generally selected or were placed on rate plans consistent with projections at the time of the Settlement. Optimization of rate plans by residential customers has increased since the Test Year and is continuing to rise. A year-over-year analysis of bills, although subject to the criticisms in both my and Mr. Padgaonkar's testimonies, is still informative in a relative sense and does not produce results anywhere close to the bill impact claimed by Mr. Padgaonkar. Finally, Mr. Gayer's analysis is punctuated with numerous conceptual flaws and mathematical errors.

**Q. DOES THIS CONCLUDE YOUR WRITTEN REBUTTAL TESTIMONY?**

A. Yes.

# EXHIBIT 3

## Rebuttal Testimony of

## Charles Miessner

**REBUTTAL TESTIMONY OF CHARLES A. MIESSNER**

**On Behalf of Arizona Public Service Company**

**Docket No. E-01345A-18-0002**

August 17, 2018

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**REBUTTAL TESTIMONY OF CHARLES A. MIESSNER ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY (Docket No. E-01345A-18-0002)**

I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

A. Charles A. Miessner, 400 North Fifth Street, Phoenix, Arizona 85004. I am Principle Strategist for Arizona Public Service Company (APS or Company).

**Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THIS MATTER?**

A. No. But, I filed Direct and Settlement Testimony in APS's most recent general Rate Case, Docket Nos. E-01345A-16-0036 and E-01345A-16-0123.

**Q. WHAT ARE YOUR CREDENTIALS RELEVANT TO YOUR REBUTTAL TESTIMONY?**

A. I have over 30 years of experience in rates and regulatory issues in the electric utility industry. I am currently Vice Chairman of the Edison Electric Institute's national rates committee and an instructor at their advanced rate school. I have completed requirements towards a Ph.D. in Economics, absent dissertation, at the University of North Carolina and have appeared before regulatory and legislative bodies in five states.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. I address certain bill impacts and the transfer of revenue requirement from adjustor rates to base rates and explain how the bill impacts were formulated and how this transfer was reflected in the impact estimate. Specifically, I address the following issues:

- The formulation of the estimates of average base rate bill impacts from the Rate Case;
- The transfer of revenue requirements from adjustor rates to base rates and how it was reflected in the bill impact;

- The timing of new adjustor rates and factors outside of and unrelated to the Rate Case that also impacted the adjustor rates; and

- How other parties erred in their estimates of the bill reductions from the adjustor rates because they failed to account for timing differences or failed to adjust for other outside factors.

## II. SUMMARY

**Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

A. In my Rebuttal Testimony, I explain and support the following:

- **The depiction of the average impact from the Rate Case was consistent with the granted increase in base rates net of the adjustor transfer.** In Decision No. 76295, the Arizona Corporation Commission (Commission) approved a base rate increase of 12.55% for the total retail class. However, 9.28% of this increase was a transfer of revenue from adjustor rates to base rates, with no net increase in revenue to APS. This resulted in a net impact of 3.28%. For the residential class, which is the focus of this proceeding, the approved increases were a 15.90% overall increase in base rates, an adjustor transfer of 11.6% for a net impact of 4.54%.

- **Champion Witness Abhay Padgaonkar significantly overestimates the bill impact.** He underestimates the bill reductions from adjustor rates, erroneously relying solely on price trends and observed rate schedules for estimating the adjustor rate reductions. Because these adjustor rate reductions must be netted against the base rate increase, he significantly overestimates the net bill impact.

- **Intervenor Mr. Gayer also significantly overestimates the bill impact because, among other issues, he appears to misunderstand how adjustor**

**rates are derived and implemented.** As a result, he underestimates the bill reduction from the adjustor transfer in this case and therefore overestimates the net impact.

- **Because of these mistakes, the claims made by both Mr. Padgaonkar and Mr. Gayer, which are based on faulty assumptions and assessments, cannot be relied on.** The key discrepancies for both Mr. Gayer and Mr. Padgaonkar are that they fail to recognize that:

  1. The Demand Side Management Adjustment Clause (DSMAC) and Renewable Energy Adjustment Clause (REAC) adjustors were revised through their annual budget approval process, specified in their approved Plan of Administration (POA), in separate proceedings but at the same time that they were reduced due to the Rate Case transfer; thus, the impact from the Rate Case was affected by other independent changes to these adjustors;

  2. The Lost Fixed Cost Recovery (LFCR) adjustor transfer was not reflected in a lower LFCR rate until 2018 because of the timing of the cost recovery in the adjustor consistent with its POA; and

  3. The billing determinants and class allocators for the Transmission Cost Adjustor (TCA) changed from the Test Year, which lowered the residential class share of the transferred revenue requirements.

  If Mr. Padgaonkar and Mr. Gayer had appropriately reflected these adjustor intricacies, they would have concluded that an assessment of the adjustor transfer will result in an 11.36% average bill reduction and an average net impact of 4.54%, consistent with the Settlement.

- **Contrary to assertions made by Mr. Gayer, the base rates and adjustor rates were implemented correctly consistent with the revenue approved in this case.** I provide information to demonstrate that the revenue requirements for the adjustors were reduced in the Rate Case by the transferred amounts and these lower revenue requirements were subsequently reflected in lower adjustor rates.

## III. RATE INCREASE AND AVERAGE BILL IMPACT

**Q. WHAT WAS THE APPROVED RATE INCREASE IN APS'S RECENT CASE?**

A. In APS's recent Rate Case, the Commission approved an increase in base rates of $94.62 million, a transfer of revenue requirement from adjustor rates into base rates of $267.95 million, which has no impact on overall revenue, for a total increase in base rates of $362.58 million.[1] The approved rate increases are summarized in Table 1 for both total retail and, specifically, the residential class.

*Table 1. Approved Increases to Base Rates*

(Millions of dollars, Rounded)

| | Total Retail | | Residential | |
|---|---|---|---|---|
| | $ | % | $ | % |
| Net Increase | 94.62 | (3.28) | 67.55 | (4.54) |
| Adjustor Transfer | 267.95 | (9.28) | 168.86 | (11.36) |
| Base Rate Increase | 362.58 | (12.55) | 236.41 | (15.90) |

**Q. WHAT WAS THE AVERAGE BASE RATE BILL IMPACT PROVIDED IN THE CASE?**

A. As shown in Table 2, the average base rate bill increase provided in the Settlement was 3.28% overall, and 4.54% for the residential class.[2]

*Table 2. Average Bill Impact*

| | Total Retail | Residential |
|---|---|---|
| | % | % |
| Base Rate Increase | 12.55 | 15.90 |
| Adjustor Rate Decrease | (9.28) | (11.36) |
| Bill Impact | 3.28 | 4.54 |

[1] Settlement Agreement Page 8, Section 3.2. Numbers are rounded.
[2] Settlement Agreement Page 8, Section 4.1

**Q. WERE THE BILL IMPACTS CONSISTENT WITH THE APPROVED REVENUE INCREASE?**

A. Yes. The average bill impacts provided in the Settlement were consistent with and calculated on the same basis as the approved rate increase in the Rate Case.

IV. <u>ADJUSTOR TRANSFER</u>

**Q. PLEASE DESCRIBE THE ADJUSTOR TRANSFER.**

A. As stated, the approved increase to base rates included $267.95 million of revenue requirement that was transferred from recovery in various adjustors to base rates. This transfer resulted in no net increase in revenue; it just changed the method of cost recovery. Furthermore, the transfer was calculated specific to each rate class based on the actual revenue billed in the 2015 Test Year for the class. The transferred amounts and resulting percentage increase to Test Year base revenue are provided in Table 3.

*Table 3. Adjustor Transfer*

(Millions of dollars, Rounded)

| | Total Retail | | Residential | |
|---|---|---|---|---|
| Test Year Base Revenue | $ | 2,888.90 | $ | 1,486.58 |
| Adjustor Transfer | $ | 267.95 | $ | 168.86 |
| % Increase in Base Revenue from Transfer | | 9.28% | | 11.36% |
| Adjustor Revenue Decrease | $ | (267.95) | $ | (168.86) |
| % Decrease from Transfer | | (9.28%) | | (11.36%) |
| Net Change from Transfer | | $0 | | $0 |

**Q. HOW DO ADJUSTOR RATES WORK?**

A. Adjustors can be relatively complex - their rates are examined each year and revised, as needed, and approved by the Commission, to recover approved budgets or revenue requirements. They have balancing accounts to true-up for differences between the approved revenue requirements and the actual revenue recovery in any year. For some, the adjustor rates are set based on projected costs and billing determinants. Others recover costs on a delayed, after-the-fact historic basis.

The actual revenue recovered from adjustors in any year are "passed-through" and matched to the costs they are designed to recover. As mentioned, any variance between the annual revenue and the costs are trued-up and either recovered or credited in the following year. A simplified depiction is provided in Table 4.

In this illustrative example, the Year 1 approved annual budget is $100 and projected sales are 10,000 kWh resulting in a rate of $0.01 per kWh. Subsequently, actual sales are 9,500 kWh, which results in under recovered costs of $5. Through the balancing account mechanism, this variance is reflected in the total revenue requirement for Year 2 and combined with a new budget of $110 and using the same 10,000 kWh result in a rate reset to $0.0115. In a like manner, any over-recovery in Year 2 is credited to the revenue requirements for Year 3.

*Table 4. Illustrative Depiction of Adjustor Mechanism*

| | Year 1 | Year 2 | Year 3 |
|---|---|---|---|
| Approved Budget ($) | 100 | 110 | 105 |
| Variance from Prior Year | - | 5 | (2) |
| Total Revenue Requirement | 100 | 115 | 103 |
| Projected Sales (kWh) | 10,000 | 10,000 | 10,000 |
| Rate ($/kWh) | 0.0100 | 0.0115 | 0.0103 |
| Actual Sales (kWh) | 9,500 | 10,175 | 10,000 |
| Actual Recovery | 95 | 117 | 103 |
| Variance | (5) | 2 | - |

**Q. WHAT'S THE SIGNIFICANCE OF THIS FOR THE ADJUSTOR TRANSFER?**

A. As part of the adjustor transfer, the revenue requirements for each adjustor rate were reduced by the amount of the transferred dollars. For example, for the DSMAC adjustor approximately $10 million of revenue requirements were transferred from recovery through the adjustor to recovery through base rates. This means that the new revenue requirements for the next reset of the DSMAC rate were $10 million lower than they otherwise would have been. Thus, the new DSMAC rate would be formulated to collect $10 million less revenue on customer bills. Further, any variance between the actual revenue collected from the DSMAC rate in the subsequent 12 months and the revenue requirements, including the $10 million reduction, would be trued-up in the next annual rate reset. As a result, the full $10 million reduction in the DSMAC adjustor would continue to be reflected in lower customer bills.

**Q. DOES THE SETTLEMENT 4.54% NET BILL IMPACT ACCURATELY REFLECT THIS ADJUSTOR TRANSFER?**

A. Yes. As stated, the 4.54% net bill impact includes the class level 15.90% base rates increase, net of the 11.36% bill reduction from lower adjustor rates. The revenue transfer reduces the revenue requirement for adjustors by approximately $169 million for residential customers, which will be reflected in lower adjustor rates as compared to the levels which otherwise would have occurred. This results in an 11.36% bill reduction from the lower adjustor rates and a net bill impact of 4.54% on average.

**Q. WHICH ADJUSTORS WERE INCLUDED IN THE TRANSFER?**

A. The agreed-upon adjustor transfer included six of the adjustor rates as shown in Table 5. The Power Supply Adjustor (PSA) was not included in the transfer or the bill impact estimate because it flows through its own mechanism based on the fuel index in base rates and is revised based on the historic, projected, and actual fuel costs. The transfer and bill impact also excluded the additional $15 million reduction in revenue requirements for the DSMAC adjustor provided in the Settlement, beyond the basic amount of adjustor transfer.

*Table 5. Adjustor Transfer Details*

(Thousands of dollars, Rounded)

| | | All Customers | Residential | Residential Revenue Impact |
|---|---|---|---|---|
| | | $ | $ | % |
| DSMAC | Energy Efficiency | (9,993) | (4,794) | (0.32) |
| EIS | Emissions Control | (2,459) | (1,243) | (0.08) |
| FCA | Four Corners | (57,670) | (31,751) | (2.14) |
| LFCR | Lost Fixed Costs | (46,054) | (31,003) | (2.09) |
| SB-2 | System Benefits | 14,604 | 7,091 | 0.48 |
| REAC | Renewable Energy | (37,596) | (16,600) | (1.12) |
| TCA | Transmission | (128,785) | (90,560) | (6.09) |
| | Total | (267,953) | (168,860) | (11.36) |

**Q. PLEASE EXPLAIN THE PSA ADJUSTOR RATE.**

A. The PSA adjustor recovers fuel costs that change over time, relative to a baseline recovery level, that is set in a general rate case. The PSA rate is modified each year, according to its POA, as fuel prices change relative to this baseline level. APS witness Mr. Snook also addresses this issue in his Rebuttal Testimony. The baseline fuel cost level was lowered in the Rate Case to reflect lower expected costs.[3] This reset lowers the baseline fuel rate and initially raises the PSA rate by an equal amount to maintain the current year cost recovery for fuel. The PSA rate is subsequently modified the following February according to its normal annual timing, based on updated fuel projections and any historic variances in recovery at that time. The PSA rate was initially increased in August 2017 to reflect this baseline reset and then additionally modified in February 2018. If this had not been done, the February 2018 PSA reset would have been higher.

[3] Settlement, page 10, Section 7.1.

**Q. WHAT IS THE FIRST YEAR DSMAC REDUCTION?**

A. The DSMAC adjustor rate was reduced twice in the Rate Case: once due to the adjustor transfer of approximately $10 million into base rates, and a second time for a first year reduction of $15 million from past collected but unspent funds. While both factors were included in the reset of the adjustor rate concurrent with the Rate Case (but in a separate docket) in August 2017, each of which lowered the rate from what otherwise would have occurred, only the first factor was included in the bill impact estimate, not the second.

## V. CRITIQUE OF BILL IMPACT ESTIMATES MADE BY OTHER PARTIES

**Q. DID YOU REVIEW THE TESTIMONY AND BILL IMPACT ESTIMATES OF OTHER PARTIES?**

A. Yes. I reviewed the Direct Testimony and bill impact estimates of Intervenor Mr. Gayer and Champion witness Mr. Padgaonkar.

**Q. WHAT DID MR. PADGAONKAR CLAIM CONCERNING BILL IMPACTS?**

A. In his Direct Testimony, Mr. Padgaonkar estimated the net bill impact for three situations using a sampling of residential customers: (1) customers on transitional rates, (2) customers on new rates that are most like their old rates, and (3) customers on their new actual rate. He found net impacts of 10.34%, 14.03%, and 12.56% for each of these situations, respectively. These estimates all include a bill reduction from adjustor rates that he estimates to be 4.85%.[4]

**Q. DO YOU AGREE WITH HIS ESTIMATE?**

A. No, I do not. His assessment contains a number of errors and faulty assumptions, both in the estimate of the overall increase to customers on their new rate and the bill reduction from the adjustor transfer (the 11.36%), affecting each of his scenarios. APS witness Jessica Hobbick elaborates on the concerns with the former issue, while I focus on the concerns with his estimate of the impact of the adjustor transfer.

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[4] Padgaonkar Direct Testimony page 20, line 10 and page 22, line 19.

Mr. Padgaonkar estimates the bill reduction from the adjustor transfer by rebilling customers with observed adjustor rates before and after the implementation of new base rates in August 2017 and by reviewing recent trends in adjustor rates since the Test Year. This method is flawed because it does not recognize or account for other factors that influence the adjustor rates, besides the transfer.

**Q. WHAT ARE THESE OTHER FACTORS?**

A. An accurate assessment of the impact of the adjustor transfer must recognize and account for (1) changes in adjustor rates in August 2017 that are implemented concurrently with the adjustor transfer, (2) adjustor transfer impacts that were approved in the Settlement but reflected in rates after August 2017, and (3) changes in allocation factors that could affect the bill impact for any particular class. Mr. Padgaonkar did not account for any of these factors.

**Q. WHAT CHANGES TO THE ADJUSTORS OCCURRED, OUTSIDE OF THE RATE CASE, BUT WERE IMPLEMENTED CONCURRENTLY WITH THE TRANSFER?**

A. The REAC and DSMAC adjustors were revised to reflect changes in their approved annual budgets and rates as part of their normal process, at the same time that the rate transfers were being implemented. In fact, the new adjustor rates established in August 2017 reflected both of these effects. In other words, an approved revenue requirement change outside of the Rate Case was offset by a simultaneous reduction from the Rate Case transfer, making the latter appear to be less significant. As a result, the bill reductions solely from the rate transfers are not evident without separating them from the other factors.

**Q. WHEN WERE THE ADJUSTOR RATES REDUCED TO REFLECT THE TRANSFER?**

A. Most of the adjustors were revised to reflect the transfer on August 19, 2017, the same day that new rates from the Rate Case were installed. The one exception was the LFCR adjustor, which was reduced later according to the process specified in its POA.

**Q. WHAT OTHER CHANGES WERE OCCURRING WITH ADJUSTOR RATES AT THAT TIME THAT COULD HAVE AFFECTED THE BILL IMPACT?**

A. Most of the adjustor rates are driven by the revenue requirements and the billing determinants that set the unit rates and determine the allocation of cost responsibility among the customer classes. These billing determinants and allocators, which change over time, had gone through two annual resets between the 2015 Test Year and the Rate Case reset in 2017. Therefore, while the overall adjustor revenue reduction from the transfers would be the same in 2017 as in 2015, the relative impact on a particular class could change.

For example, the TCA adjustor had a noticeable change in the allocation of cost responsibility from 2015 to 2017, resulting in a net bill impact from the transfer for the residential class of -5.2% in 2017 versus an impact of -6.1% based on the 2015 Test Year information. Therefore, while the entire amount of adjustor transfer was reflected in new rates, the residential portion was lower and the general service portion was higher than the amounts collected by the TCA in the Test Year.

**Q. PLEASE DESCRIBE THE COMPLEXITY IN THE RESET OF THE REAC ADJUSTOR RATE.**

A. The REAC revenue requirements and rates are determined by the Commission through an annual budget approval process. The adjustor also has a balancing account which recovers or credits variances from the prior year.

The annual adjustor budgets and new rates were implemented in a separate decision in August 2017 simultaneously with the Rate Case transfer amount. The increase in annual revenue requirements from a higher budget was offset by a reduction due to the Rate Case transfer amount. However, on net, the adjustor rate increased because the former was higher than the latter.

In addition, the August 2017 REAC adjustor rate reset included a significant temporary true-up for under-recovery during the first eight months of 2017.

As illustrated in Table 6, on August 19, 2017 the REAC adjustor rate for residential customers increased from \$3.74 to \$4.28 per month,[5] which is a bill impact of \$0.54 per month or 0.46% of the average base bill amount. At first glance, it would appear that the Rate Case transfer actually increased the adjustor rate and had a bill impact of 0.46%.[6] However, upon closer analysis, it is clear that an accurate assessment of the bill impact solely from the transfer must separate the rate change into two components: the increase due to the annual budget increase and the decrease due to the adjustor transfer.

Furthermore, once the temporary true-up for the prior under-recovery goes away, and the REAC rate is, therefore, reduced upon the next reset, the reduction from the Rate Case transfer will be more evident.

An apples-to-apples comparison, which reflects the full transfer and separates out the concurrent, outside effects, shows that the actual 2018 REAC rate was \$3.01 per month, but would have been \$4.39 without the transfer. Therefore, the full bill impact from the transfer is a reduction of \$1.38 per month, which is -1.17% of the typical base bill. The actual bill impact from the transfer is a reduction of 1.17%, while a simple comparison of 2017 rates would erroneously indicate a bill increase of 0.46%.

*Table 6. Renewable Programs Adjustor (RES)*

Rates and Bill Impacts for Residential Customers

| | Rate per month | Bill Impact | % Impact |
|---|---|---|---|
| | \$ | \$ | % |
| 2016 Rate | 3.74 | | |
| August 2017 Rate | 4.28 | 0.54 | 0.46% |
| | | | |
| 2018 Rate | 3.01 | | |
| 2018 Rate w/o Transfer | 4.39 | (1.38) | (1.17%) |

Note: % impacts based on average base bill of \$118.32

[5] Most residential customers are subject to the monthly capped rate amount.

[6] The impacts in Table 6 are expressed as a percent of the portion of the bill from base rates, not the total bill, to be consistent with the general Rate Case increase. This issue is discussed in more detail below.

This example highlights the issue that the 11.36% bill reduction from adjustors only represents the impacts from the Rate Case transfer, not other changes to adjustors that have occurred outside of the Rate Case even if concurrent with the Rate Case.

**Q. PLEASE SUMMARIZE THE RESULTS OF THESE ISSUES.**

A. If a bill impact estimate failed to correct for these issues, as Mr. Padgaonkar's estimates failed to do, it would result in significant errors and discrepancies from the 11.36% Settlement estimate. Such an estimate would not recognize the bill reductions from the LFCR at all because it occurred after the August 2017 rate reset. Additionally, it would fail to accurately account for the concurrent impacts for the REAC and DSMAC adjustors and the change in class allocations for the TCA adjustor. These errors are collectively nearly five percentage points lower than the 11.36% Settlement estimate.

**Q. HOW DID THE SETTLEMENT BILL IMPACT ASSESSMENT ADJUST FOR THESE ISSUES?**

A. As discussed above, the Settlement bill impact estimated the bill reductions from adjustor rates by dividing the transferred revenue by the Test Year base revenue for each class, rather than by simulating the impacts from the new 2017 rates and bills. Therefore, the rate implementation timing and other factors discussed did not influence the estimate, and there was no need for any corrective adjustments.

**Q. WHAT OTHER DIFFERENCES ARE THERE BETWEEN MR. PADGAONKAR'S ESTIMATE AND THE SETTLEMENT?**

A. Because Mr. Padgaonkar relied on rebills, using observed adjustor rates in August 2017 and recent annual trends, he likely included both the PSA rate impact and the additional DSMAC funding from past unspent amounts, both of which were excluded in the Settlement bill impact estimate. The PSA flow-through would have increased the impact estimate, while the DSMAC funding would have reduced it, somewhat.

However, as discussed, the main difference between the 11.36% bill reduction from the adjustor transfer in the Settlement and Mr. Padgaonkar's estimate of 4.85% are the result of his failure to account for the other issues discussed.

**Q. IN LIGHT OF THESE ERRORS, WHAT DO YOU CONCLUDE ABOUT MR. PADGAONKAR'S BILL IMPACT ESTIMATE?**

A. Because of these errors, Mr. Padgaonkar significantly underestimates the bill reduction from the adjustor transfer and overestimates the overall net bill impact for the residential class.

**Q. WHAT DID MR. GAYER CLAIM CONCERNING BILL IMPACTS?**

A. In his Direct Testimony, Intervenor Mr. Gayer asserts that the net bill increase is 15.9%, or at least 15%, "more than three times the 4.54% urged by APS."[7]

**Q. IS MR. GAYER'S BILL IMPACT ESTIMATE ACCURATE?**

A. No. Quite the reverse. His estimate is highly inaccurate because, among other reasons, it is apparently based on a faulty misconception of how the adjustor transfer took place in the Rate Case and incorrectly estimates the bill reduction from the adjustor transfer.

Furthermore, Mr. Gayer claims that the adjustor transfer was one sided – it was added to base rates, but not subtracted from the adjustor rates.[8] As a result, he asserts that the Rate Case math worked precisely in reverse: the net increase was 15.90%, which included the 4.54% increase plus an increase from adjustor transfers of 11.36%. This assertion is simply incorrect. I demonstrate below how the adjustor transfers were implemented in the Rate Case and subsequently reflected in the adjustor rates.

Finally, Mr. Gayer's bill impact estimate is wrong because, similar to the mistake made by Mr. Padgaonkar, he fails to recognize or account for the other issues that impact adjustor rates besides the transfer, and he does not understand that one of the transferred amounts was reflected in 2018 adjustor rates, rather than the 2017 level upon which he relied.

[7] Gayer Direct Testimony page 6, line 28 and page, 7 line 4.
[8] Gayer Direct Testimony page 2, line 25.

**Q. WHAT IS YOUR CONCLUSION CONCERNING MR. GAYER'S BILL IMPACT ESTIMATE?**

A. Mr. Gayer' bill impact estimate of 15.9% is highly inaccurate because of the errors discussed and, therefore, cannot be relied on.

## VI. IMPLEMENTATION OF THE ADJUSTOR TRANSFER

**Q. HOW WAS THE REVENUE TRANSFER IMPLEMENTED IN THE RATE CASE?**

A. The revenue requirement, or revenue recovery responsibility, for each adjustor rate was reduced through pro forma adjustments to Test Year revenues, which removed the revenue requirement in the accounting system from the adjustor rate and transferred it to base rates.

**Q. CAN YOU PROVIDE AN EXAMPLE?**

A. Yes. For example, the Four Corners Adjustment (FCA), recovered $57.67 million in the 2015 Test Year. The pro forma adjustment of ($57.67) million removed that revenue requirement from the adjustor and transferred the same amount to base rates.

**Q. WERE THE LOWER REVENUE REQUIREMENTS SUBSEQUENTLY REFLECTED IN LOWER ADJUSTOR RATES?**

A. Yes. The lower revenue requirements were subsequently reflected in lower adjustor rates. Again using the FCA adjustment as an example, the new FCA rate resulting from the Rate Case transfer was reduced to a level that would recover $57.67 million less than the Test Year amount. In this case, the new FCA rate would be zero because 100% of the Test Year revenue requirement was transferred to base rates, and the revenue requirement has not changed since the Test Year. This example is illustrated in Table 7.

*Table 7. Four Corners Adjustor (FCA)*

(Millions of Dollars, Rounded)

| | |
|---|---|
| 2015 Test Year Adjustor Rate | 2.03% of Base Bill per month |
| 2015 Test Year Adjustor Revenue | \$57.67 |
| Proforma Adjustment | (\$57.67) |
| Remaining Revenue Requirement for Adjustor Rate | \$0 |
| New Adjustor Rate | Cancelled |

**Q. CAN YOU PROVIDE SIMILAR INFORMATION FOR THE OTHER ADJUSTOR TRANSFERS?**

A. Yes. APS reviewed the actual adjustor rates on or after August 2017 and assessed the reduction in revenue requirement that occurred in the rate formulation as a result of the transfer. It then calculated the adjustor rates that would have occurred absent the adjustor transfer. The bill impact from the transfer was then computed based on the difference between these two rates and applied to the average customer using 1,068 kWh per month.

**Q. WHAT DO THE RESULTS SHOW?**

A. The results show that the new adjustor rates, when correctly compared with the rates that would have occurred without the transfer, produce a bill reduction for the average residential customer of approximately 11.20%, which is consistent with the class level impact from the Settlement. The small difference between the 11.20% typical bill reduction and the 11.36% reduction in class revenue requirements is because not all adjustors are billed on a per kWh basis, which makes the percent impact slightly different for a typical bill than the average for the class. The results for each adjustor rate in the transfer are provided below in Table 8.

*Table 8. Bill Impacts from Adjustor Transfers - Residential Customers*

Using Recalculated Rates without the Transfer and Typical Billed Amounts

| | Rate | Bill | % Impact |
|---|---|---|---|
| | $ | $ | % |
| **DSM** | | | |
| August 2017 Actual | 0.000982 | 1.05 | |
| Rate Without Transfer | 0.001337 | 1.43 | |
| Bill Impact of transfer | | (0.38) | (0.32%) |
| **EIS** | | | |
| August 2017 Actual | 0 | 0 | |
| Rate Without Transfer | 0.000109 | 0.12 | |
| Bill Impact of transfer | | (0.12) | (0.10%) |
| **FCA** | | | |
| August 2017 Actual | 0 | 0 | |
| Rate Without Transfer | 2.03% | 2.40 | |
| Bill Impact of transfer | | (2.40) | (2.03%) |
| **LFCR** | | | |
| August 2017 Actual | 0.00301 | 3.21 | |
| Rate With Transfer | 0.00084 | 0.90 | |
| Bill Impact of transfer | | (2.31) | (1.95%) |
| **SBA-2** | | | |
| August 2017 Actual | 0 | 0 | |
| Rate Without Transfer | (0.000512) | (0.55) | |
| Bill Impact of transfer | | 0.55 | 0.46% |
| **RES** | | | |
| August 2018 Actual | 0.007513 | 3.01 | |
| Rate Without Transfer | 0.010981 | 4.39 | |
| Bill Impact of transfer | | (1.38) | (1.17%) |
| **TCA** | | | |
| August 2017 Actual | 0.003265 | 3.49 | |
| August 2017 with 2015 Allocators | 0.002286 | 2.44 | |
| Rate Without Transfer | 0.009033 | 9.65 | |
| Bill Impact of transfer | | (7.21) | -(6.09%) |
| | | Total Bill Impact of Adjustors | (11.20%) |

**Q. WHAT DO YOU CONCLUDE FROM THIS ASSESSMENT?**

A. This assessment demonstrates that the transfer amounts were reflected in lower revenue requirements and rates for each adjustor. It also supports the Settlement estimate of the bill reduction from the adjustor rates of 11.36% for residential customers, and by extension, the net impact of 4.54%.

VII. <u>CONCLUSION</u>

**Q. DO YOU HAVE ANY FINAL COMMENTS?**

A. Yes. The Settlement estimate of the residential bill impact was an appropriate and accurate depiction of the revenue increase approved in the Rate Case. Estimates offered by other parties are wrong because they significantly underestimate the bill reduction from the adjustor transfer. This faulty assessment results from a fundamental misunderstanding of how adjustor rates are implemented. Given these errors, the claims by other parties - that the Settlement's estimated bill impact was significantly understated - are based on flawed assessments and therefore cannot be relied on in this proceeding.

**Q. DOES THIS CONCLUDE YOUR WRITTEN REBUTTAL TESTIMONY?**

A. Yes.

# EXHIBIT 4

## Rebuttal Testimony of

## Ahmad Faruqui

# REBUTTAL TESTIMONY OF AHMAD FARUQUI

**On Behalf of Arizona Public Service Company**

**Docket No. E-01345A-18-0002**

August 17, 2018

## Table of Contents

# REBUTTAL TESTIMONY OF AHMAD FARUQUI ON BEHALF OF ARIZONA PUBLIC SERVICE COMPANY (Docket No. E-01345A-18-0002)

## I. INTRODUCTION

**Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

A. My name is Ahmad Faruqui. My business address is 201 Mission Street, Suite 2800, San Francisco, California 94105. I am a Principal of The Brattle Group.

**Q. DID YOU PREVIOUSLY FILE TESTIMONY IN THIS MATTER?**

A. Yes, I filed Direct Testimony on behalf of Arizona Public Service (APS) on July 31, 2018.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?**

A. The purpose of my Rebuttal Testimony is to comment on the analysis presented in Champion witness Abhay Padgaonkar's Direct Testimony and accompanying expert report. My Rebuttal Testimony identifies some conceptual problems in Mr. Padgaonkar's analysis of customer bills. APS witness Charles Miessner's Rebuttal Testimony quantifies the empirical magnitude of these conceptual problems.

## II. SUMMARY

**Q. WHAT ARE THE MAIN POINTS IN MR. PADGAONKAR'S TESTIMONY, AS YOU UNDERSTAND THEM?**

A. Mr. Padgaonkar has calculated the change in bills for a sample of APS customers. His analysis controls for changes in each customer's usage in order to isolate the effect of rate changes. Mr. Padgaonkar's analysis is conducted for a variety of scenarios related to (a) the rate effective date (i.e., 2015 Test Year, August 2016 - July 2017, August 2017), (b) rate schedule (e.g., 2015 Test Year rates, transitional rates, new rates), and (c) customer rate-switching behavior (e.g., most-like rate, actual rate).

Across the scenarios he has analyzed, Mr. Padgaonkar confirms that the average change in a residential customer's base bill is consistent with the approved amount in the Settlement (a 15.9% increase) for the transition rates. However, Mr. Padgaonkar finds that the reduction in adjustor charges is lower than the amount specified in the Settlement Agreement. He estimates that residential adjustor charges decreased by only around 4.8%, rather than the 11.36% approved in Decision No. 76295 (August 18, 2017).[1] Mr. Padgaonkar concludes that this discrepancy caused customer bills to increase on average by more than the approved amount.

**Q. ARE THERE ANY POINTS OF AGREEMENT BETWEEN YOUR DIRECT TESTIMONY AND THAT OF MR. PADGAONKAR?**

A. Yes. Mr. Padgaonkar's testimony confirms two major points from my expert report. First, Mr. Padgaonkar agrees that a simple comparison of bills, without controlling for changes in usage, is not appropriate for determining if APS's rate increase was correctly implemented.[2] He agrees that bill changes must be analyzed by controlling for other "moving parts," which are independent of the approved changes. Second, Mr. Padgaonkar's analysis confirms that the total change in base rates (independent of adjustors) was consistent with the amount approved in Decision No. 76295 for the transitional rates.[3]

**Q. ARE THERE ASPECTS OF MR. PADGAONKAR'S ANALYSIS WITH WHICH YOU DISAGREE?**

A. Yes. I have identified two categories of inaccuracies in Mr. Padgaonkar's analysis. First, his analysis does not account for the nuances of the process for changing adjustor

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[1] Padgaonkar Direct Testimony, page 20, line 16. The adjustor change quantified by Mr. Padgaonkar varies slightly across the various scenarios he has analyzed, but it is in the range of 4.8%.

[2] Padgaonkar Direct Testimony, page 9, lines 7-8.

[3] Padgaonkar Direct Testimony, page 20, lines 14-15. Mr. Padgaonkar describes the change in transitional rates to be "in line" with the approved increase. For the new rates (i.e., post-transitional rates), he estimates a range of rate changes based on different assumptions about the customers' assumed new rate schedule(s).

charges. As a result, Mr. Padgaonkar's analysis wrongly suggests that APS made rate modifications that were not in accordance with the Settlement or the various adjustor Plans of Administration (POAs) approved by the ACC. Second, Mr. Padgaonkar's analysis does not fully account for the likely future bill impact of customers switching to more beneficial rate options.

## III. ADJUSTOR CHARGES

**Q. HOW DID YOU ADDRESS THE CHANGE IN ADJUSTOR CHARGES IN YOUR DIRECT TESTIMONY?**

A. In my Direct Testimony, I qualitatively explained that annual changes in adjustor charges are one factor that would cause a customer's bill to change by an amount different than the approved 4.54% rate increase. As I describe below, this is a significant point that is not correctly accounted for in Mr. Padgaonkar's analysis. Specifically, in my expert report I noted the following:

> Adjustors are charges that change in between rate cases, and therefore change more frequently than total rates. Comparing bills from two different years will capture changes in the adjustors which were not within the scope of the 4.54% bill impact calculation, since it was based on the 2015 test year and accounted for no other change in adjustor levels.[4]

My quantitative analysis of Ms. Champion's bills did not directly quantify changes in the adjustor values. The scope of my analysis was focused on explaining why a customer's total bill change from one year to the next would be different than the approved 4.54% change in base rates *after* netting out the effect of the adjustor transfer. As such, my analysis focused on the net change in base rates and controlled for any annual changes that may have occurred in the adjustor charges, as these changes to

[4] Faruqui Expert Report, page 10.

adjustors happen independently of the Rate Case outcomes by design. Specifically, when netting out the impact of the changes to the adjustors, I noted the following (emphasis added): "The result of this step reduces the net bill impact, <u>suggesting that year-to-year fluctuation in charges other than the base rate contributed to Ms. Champion's aggregate bill change</u>."[5]

**Q. HOW DOES MR. PADGAONKAR'S ANALYSIS ADDRESS CHANGES TO ADJUSTORS?**

A. Mr. Padgaonkar's analysis of customer bills suggests that adjustor charges decreased by less than they should have. Based on the description of his analysis, Mr. Padgaonkar has missed important details in APS's process for modifying the adjustor charges.[6]

**Q. WHAT HAS MR. PADGAONKAR OVERLOOKED IN HIS ANALYSIS OF THE CHANGE IN ADJUSTOR CHARGES?**

A. Mr. Padgaonkar's analysis does not account for several changes that were made to the adjustor charges outside of the specific context of the Rate Case. Adjustors are designed specifically to modify APS's revenues on a timescale that is more frequent than rate cases (typically on an annual basis).[7] As such, they are modified on an independent and parallel track to that of the Rate Case.

In this instance, there were changes (in addition to the adjustor transfer) to some adjustors that happened to occur concurrently with APS's transition to the Settlement rates. Additionally, the sweep of some adjustors did not occur at the time of the transition to the new rates. The effect of these changes was to increase adjustors in the new rates relative to the amount that would have otherwise been the case if these two factors (concurrent changes and a lag in the sweep of some adjustor dollars) had not

[5] Faruqui Expert Report, page 13.

[6] I have not been able to review Mr. Padgaonkar's workpapers and verify his calculations independently, as there was insufficient time to do so after his workpapers were produced.

[7] This mitigates the customer bill impacts associated with changes in the costs that are recovered through the adjustors.

occurred. While the adjustor transfer of 11.36% was revenue neutral, Mr. Padgaonkar wrongly assumes there were no other changes to the adjustors as a result of the Rate Case or subsequent to the Rate Case. The technical details and a quantitative description of the impact of these changes are provided in the Rebuttal Testimony of Mr. Miessner.

**Q. DID MR. PADGAONKAR CORRECTLY ACCOUNT FOR THE POTENTIAL IMPACT OF YEAR-TO-YEAR CHANGES IN THE ADJUSTORS?**

A. No. Mr. Padgaonkar did attempt to account for year-to-year changes in the adjustors, but his analysis was incomplete. Mr. Padgaonkar recognized that year-to-year changes in the adjustors will have impacts on customer bills that must be controlled for when analyzing changes in APS's rates. Specifically, Mr. Padgaonkar stated that, in his analysis: "The comparison of two pre-transition rates would help determine the magnitude of the 'changes to the adjustor rates that occurred after the Test year' – so they can be excluded."[8]

In the context of this discussion, Mr. Padgaonkar also highlighted an important point made by APS in its Answer to Ms. Champion's Revised Complaint. Namely, APS indicated that the 4.54% rate increase "does not include any changes to the adjustor rate that occurred after the Test Year."[9]

In his attempt to account for the post-Test Year changes in adjustors, Mr. Padgaonkar compared adjustor revenues produced by rates from the 2016-17 timeframe to revenues produced by the rates that immediately preceded the transition to the rates approved in Decision No. 76295. In making this comparison, Mr. Padgaonkar found that adjustors increased by, at most, only 0.49% during that period. He concludes that this is a "fairly miniscule" adjustment.[10]

[8] Padgaonkar Expert Report, page 40.
[9] Ibid.
[10] Padgaonkar Expert Report, page 41.

**Q. WHAT IS MISSING FROM MR. PADGAONKAR'S ANALYSIS OF THE YEAR-TO-YEAR CHANGES IN ADJUSTORS?**

A. Mr. Padgaonkar's analysis quantifies the changes in adjustors that occurred up until *right before* the transition to the Settlement rates. His analysis does not include changes to the adjustors that were *concurrent* with, but independent of, the switch to the Settlement rates. As I described above, changes were made to the adjustors concurrently with the switch to the Settlement rates. These changes had the effect of off-setting a portion of the reduction in adjustor revenue that Mr. Padgaonkar asserts should have been observed in customer bills.

Additionally, Mr. Padgaonkar has not accounted for the fact that the transfer of revenue from the Lost Fixed Cost Recovery (LFCR) adjustor occurred *after* the transition to the new rates, rather than at the same time. The later timing of the transfer is attributable to its unique characteristics, as described in further detail in Mr. Miessner's testimony.

**Q. WHAT IS THE NET EFFECT OF THIS PROBLEM WITH MR. PADGAONKAR'S TREATMENT OF THE ADJUSTORS?**

A. Mr. Padgaonkar neglected to account for parallel changes to the adjustors that were concurrent with or subsequent to the transition to the Settlement rates. As a result, he incorrectly concludes that APS has increased rates by more than the amount approved by the ACC.

IV. <u>RATE SWITCHING BEHAVIOR</u>

**Q. YOU ALSO MENTIONED THAT MR. PADGAONKAR HAS NOT APPROPRIATELY ACCOUNTED FOR CUSTOMER RATE SWITCHING. PLEASE ELABORATE.**

A. When new rate options are introduced to customers, as was ordered in Decision No. 76295, a portion of customers will switch to a rate that reduces their electricity bill.

This is referred to as "rate switching" or "rate migration." Analysis of the average impact of new rate options on customer bills should account for anticipated switching rates.

**Q. HOW DID MR. PADGAONKAR ACCOUNT FOR RATE SWITCHING IN HIS ANALYSIS OF CUSTOMER BILLS?**

A. Mr. Padgaonkar first calculated each customer's bill change as if she/he was transitioned to the rate that is "most like" her/his pre-settlement rate. This implicitly assumes that customers do not proactively seek out the rate that minimizes their bill. Under this assumption, Mr. Padgaonkar concluded that the average rate increase was 14.03%.[11] Although Mr. Padgaonkar's analysis was already flawed for the reasons discussed above, he has compounded the error with faulty assumptions about future rate selection.

**Q. WHAT HAS MR. PADGAONKAR OVERLOOKED IN HIS ANALYSIS OF MOST-LIKE RATES?**

A. The implicit assumption that all customers will remain on their most-like rate is illogical. Over time, a portion of customers would be expected to switch to rates that benefit them financially by reducing their electricity bills. For many customers, achieving these bill savings would not require any changes to their electricity consumption patterns. The customers would experience lower bills simply by virtue of better alignment of their load shape with their chosen rate design. Mr. Padgaonkar focuses in this portion of his analysis on an incorrect assumption that all customers end up on the most-like rate and therefore systematically overstates the average bill impact.

**Q. DOES MR. PADGAONKAR ANALYZE THE SUBSET OF CUSTOMERS WHO HAVE SWITCHED TO A RATE OTHER THAN THEIR MOST-LIKE RATE?**

A. Yes, Mr. Padgaonkar did analyze bill changes for the subset of customers that switched to a rate other than their most-like rate. For these customers, Mr. Padgaonkar concludes

[11] Padgaonkar Direct Testimony, page 23, line 5.

that the average rate increase was 8.47%, much lower than the 14.03% increase cited above.[12] I would expect this group of customers to grow over time, as more customers become educated about the benefits of the new rate options. Note that, in spite of the more limited bill impacts observed in this portion of Mr. Padgaonkar's analysis, the bill increase estimates are still inflated due to his incorrect treatment of adjustor charge modifications described previously in my Rebuttal Testimony.

## V. CONCLUSION

**Q. DO YOU HAVE ANY FINAL COMMENTS?**

A. Mr. Padgaonkar has overlooked in his analysis nuanced but critically important factors. Thus, the conclusions from my Direct Testimony are still my conclusions. APS's ratemaking process is consistent with industry practices and consistent with the provisions of the Settlement and Decision No. 76295.

**Q. DOES THIS CONCLUDE YOUR WRITTEN REBUTTAL TESTIMONY?**

A. Yes.

[12] Padgaonkar Direct Testimony, page 25, line 19.